

Appl. No. 10/725,960
Response dated April 28, 2005
Reply to Office Action of Oct. 18, 2004

IN THE CLAIMS

Please amend the claims to read as follows:

1. (Previously Presented) A method for consolidating an earth stratum situated in a subgrade by withdrawing water from the subgrade comprising the steps of:
 - a) placing a plurality of generally vertically positioned drains in the earth stratum;
 - b) connecting the drains with a generally horizontally extended drain to provide water transfer between them;
 - c) forming an air sealing layer directly over the generally horizontal drain and the closing of the surface of the soil;
 - d) connecting the generally horizontal drain to a pump; and
 - e) discharging fluid from the generally horizontal drain using the pump.
2. (Previously Presented) The method of claim 1, in which a trench is made from the ground surface and the vertical drains extend downwardly from the bottom of the trench.
3. (Previously Presented) The method of claim 2, in which the trench is formed with a plough supported by a mobile carriage device and the vertical drains are positioned during use by means of said device and the horizontal drain each time being arranged after that until the next vertical drain has to be arranged.
4. (Previously Presented) The method of claim 3, in which simultaneously with the arrangement of the horizontal drain or immediately after that, the air sealing layer is being arranged by means of the device.
5. (Previously Presented) The method of claim 4, in which the air sealing layer is arranged by removing soil material from the trench walls and arranging it on the horizontal drain.
6. (Previously Presented) The method of claim 4, in which the air sealing layer is arranged by arranging a sealing foil layer on the horizontal drain.
7. (Previously Presented) The method of claim 4, in which the air sealing layer is arranged by arranging a sealing layer of plastic material on the horizontal drain.
8. (Original) The method of claim 7 wherein the plastic material is bentonite.

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9. (Canceled)
10. (Original) The method of claim 1 in which the trench is finally closed off with soil material up to approximately the original surface.
11. (Previously Presented) The method of claim 1 in which the vertical drains are taken from a supply and after each strip has been arranged are separated by cutting through at a level above the trench bottom.
12. (Original) The method of claim 10, in which the cutting through takes place in the device.
13. (Currently Amended) A soil consolidation apparatus for consolidating a selected earth stratum, comprising:
 - a) a movable carriage;
 - b) ~~means for making a trench from the ground surface down to at least the upper side of the earth stratum to be consolidated;~~
 - b) ~~c)~~ means for the stepwise supplying of vertical drains from a supply and driving each said drain into the earth stratum; and
 - c) ~~d)~~ means for supplying and laying a horizontal drain in which the horizontal drain the trench bottom that is applied in fluid communication with upper ends of the supplied vertical drains strips.
14. (Currently Amended) The soil consolidation apparatus of claim 13, further comprising means for cutting through drainage ribbon at a selected level ~~above the trench bottom~~.
15. (Original) The soil consolidation apparatus of claim 14, in which the means for cutting through includes a movable blade and an anvil for said blade.
16. (Original) The soil consolidation apparatus of claim 15 in which the blade has been arranged on a first arm of a lever rotatable about a horizontal center line, a second arm of said lever being connected to a hydraulic cylinder.
17. (Currently Amended) The soil consolidation apparatus of claim ~~44~~ 17 in which the trench-making means includes a plough.
18. (Original) The soil consolidation apparatus of claim 17, in which at its rear side the

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plough is provided with means for removing soil material from the trench walls and for pressing it downward.

19. (Previously Presented) The soil consolidation apparatus of claim 17 in which at its rear side the plough is provided with means for supplying the horizontal drain, from a supply roll.

20. (Original) The soil consolidation apparatus of claim 17 furthermore provided with means for pivoting the plough about a horizontal axis of rotation, between a trench-making active position and an upwardly tilted moving position.

21. (Original) The method of claim 1, performed on a subaqueous soil.

22-43. (Canceled)

44. (New) The soil consolidation apparatus of claim 13 further comprising means for making a trench from the ground surface down to at least the upper side of the earth stratum to be consolidated.

45. (New) A method for consolidating an earth stratum situated in a subgrade by withdrawing water from the subgrade comprising the steps of:

- a) placing a plurality of generally vertically positioned drains in the earth stratum;
- b) connecting the drains with a generally horizontally extended drain pipe to provide water transfer between them;
- c) forming an air sealing layer directly over the generally horizontal drain pipe and the closing of the surface of the soil;
- d) connecting the generally horizontal drain pipe to a pump; and
- e) discharging fluid from the generally horizontal drain pipe using the pump.

46. (New) A soil consolidation apparatus for consolidating a selected earth stratum, comprising:

- a) a movable carriage having a drive for driving the carriage over a ground surface;
- b) means for making a trench from the ground surface down to at least the upper side of the earth stratum to be consolidated;
- c) means for the stepwise supplying of vertical drains from a supply and driving each said

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drain into the earth stratum; and

d) means for supplying and laying a horizontal drain in which the horizontal drain is applied in fluid communication with upper ends of the supplied vertical drains.